

# TABLE A-IV/2 ANNEX

## EQUIPMENT OPERATION COMPETENCIES

### MF/HF OPERATION

FUNCTION: Radio Communication at the operation level

COMPETENCE	LEARNING OBJECTIVE	METHODS FOR DEMONSTRATING COMPETENCE	CRITERIA FOR EVALUATING COMPETENCE
POWER UP UNIT	3.4.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• UNIT IS ON AND READY FOR PROGRAMMING</li> </ul>
ADJUST VOLUME AND SQUELCH CONTROLS FOR PROPER OPERATION	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO PROPERLY ADJUST SQUELCH</li> </ul>
SET UNIT TO A GIVEN TRANSMIT AND RECEIVE FREQUENCY DESIGNATED BY THE EVALUATOR	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• SET UNIT TO XMIT/RECEIVE FREQUENCY FOR INTENDED MODE OF OPERATION AND PROPAGATION CONDITIONS FOR SCENARIO DESCRIBED BY EXAMINER.</li> </ul>
SET HIGH, MEDIUM AND LOW POWER	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO SET UNIT TO HIGH, MEDIUM OR LOW POWER</li> <li>• DESCRIBE CONDITIONS AND CIRCUMSTANCES WHEN LOW POWER SHOULD BE USED</li> </ul>
ABILITY TO USE ITU MEMORY FUNCTION	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• RECALL AND MAKE ACTIVE AN ITU CHANNEL PAIR FROM MEMORY</li> </ul>
PROPERLY TUNE XMTR	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO PROPERLY TUNE TRANSMITTER AND ANTENNA COUPLER TO FREQUENCY SPECIFIED BY EXAMINER</li> </ul>
CONFIRM POSITION INPUT IS AVAILABLE AND CORRECT	3.4.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO CONFIRM THAT UNIT IS FITTED WITH POSITION DATA INPUT</li> <li>• IF FITTED DEMONSTRATE HOW TO CONFIRM DATA IS PRESENT AND CORRECT</li> </ul>
MANUAL POSITION INPUT	3.4.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE HOW TO INPUT POSITION MANUALLY</li> </ul>

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TRANSMIT CALL USING EACH OF THE FOLLOWING MODES <ul style="list-style-type: none"> <li>• RT</li> <li>• FEC</li> <li>• ARQ</li> </ul>	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE PROPER SELECTION OF FREQUENCY PAIR FROM APPROPRIATE REFERENCE BOOK FOR EACH MODE</li> <li>• PROPERLY SET UP TRANSMITTER AND RECEIVER</li> <li>• USE PROPER PROTOCOL, FREQUENCY AND PROCEDURE FOR TIME OF DAY, RANGE AND CONDITIONS</li> <li>• MAKE PROPER LOG ENTRY</li> </ul>
UNDERSTANDS USE AND LIMITATIONS OF MMSI	3.4.1 3.1.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO CHECK THAT PROPER USER MMSI IS INSTALLED</li> <li>• DESCRIBES TO EXAMINER THE LIMITS ON NUMBER OF TIMES THAT MMSI CAN BE CHANGED</li> </ul>
ABLE TO PROGRAM MMSI DIRECTORY	3.4.1 3.1.8	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• PROGRAM A NINE DIGIT MMSI AND STATION NAME INTO UNIT DIRECTORY</li> </ul>
ABILITY TO TRANSMIT A DSC CALL	6.3.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• USING THE MF AND HF EQUIPMENT DEMONSTRATE THE ABILITY TO PLACE A DSC CALL TO A STATION SPECIFIED BY THE EXAMINER</li> </ul>
ACTIVATE A DISTRESS ALERT	5.2.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>USING A DUMMY LOAD</u></b> OR SIMULATOR SET UP AND ACTIVATE A DISTRESS ALERT ON A MULTIPLE FREQUENCY FROM THE BUILT IN MENU</li> </ul>
INITIATE A DISTRESS RELAY	5.2.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• USING PROPER PROTOCOLS, PROCEDURES, TRANSMIT A DISTRESS RELAY OF AN RECEIVED DISTRESS ALERT USING THE CONDITIONS DESCRIBED BY THE EXAMINER</li> </ul>
TRANSMIT A DISTRESS MESSAGE	5.2.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• <b><u>USING A DUMMY LOAD</u></b> OR PREFERABLY A SIMULATOR DRAFT AND DEMONSTRATE HOW TO TRANSMIT A DISTRESS MESSAGE USING PROPER TERMINOLOGY &amp; PROCEDURES</li> </ul>

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### MF/HF OPERATION

ACKNOWLEDGE A DISTRESS MESSAGE	5.2.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• SEND AN ACKNOWLEDGMENT TO A MEDIUM FREQUENCY DISTRESS MESSAGE &amp; EXPLAIN ITS MEANING.</li> </ul>
ABILITY TO TRANSMIT AN ALL SHIPS CALL	5.2.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE HOW TO SET UP AND TRANSMIT AN ALL SHIPS CALL INTO A <b><u>DUMMY LOAD</u></b> (OR SIMULATOR)</li> </ul>
DEMONSTRATE KNOWLEDGE OF DISTRESS DATA DIRECTORY	5.2.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• ACCESS THE DISTRESS DATA DIRECTORY AND RETRIEVE THE INFORMATION</li> </ul>
TRANSMIT AN AUTOMATIC DISTRESS ALERT	5.2.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE AND EXPLAIN THE USE OF THE “DISTRESS BUTTON “ ON SIMULATOR OR INTO A <b><u>DUMMY LOAD</u></b></li> </ul>
ABILITY TO INITIATE AND PROPERLY ACT ON RESULTS OF SELF TEST	3.4.3 3.5.1	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• INITIALIZE SELF TEST PROGRAM</li> <li>• ANALYZE RESULTS</li> <li>• TAKE APPROPRIATE ACTION SUCH AS REPORTING TO MASTER</li> <li>• PRINT OUT OR RECORD TEST REPORT RESULTS</li> </ul>
ENTER SPECIFIED TRANSMIT AND RECEIVE FREQ.	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO ENTER MANUALLY A TRANSMIT AND RECEIVE FREQUENCY SPECIFIED BY THE EXAMINER</li> </ul>
TRANSMIT A NON DISTRESS ALL SHIPS CALL	5.2.2	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE THE ABILITY TO PROPERLY INITIATE AND COMPLETE AN ALL SHIP CALL WITH SUPPLIED TEXT TO SHIPS WITHIN A SPECIFIED AREA</li> </ul>
COMPOSE A MESSAGE USING KEYBOARD	6.3.4	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE THE ABILITY TO CORRECTLY USE THE KEYBOARD TO COMPOSE AND PREPARE A MESSAGE</li> </ul>
DEMONSTRATE PROCEDURES TO MITIGATE A FALSE ALERT	5.2.1 5.4.2	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE THE PROPER PROCEDURE TO USE TO MITIGATE OR CANCEL A FALSE ALERT.</li> </ul>

**TABLE A-IV/2 ANNEX**  
**EQUIPMENT OPERATION COMPETENCIES**  
**MF/HF OPERATION**

DEMONSTRATE COMPLETE PROCESS OF EXECUTING A NORMAL MESSAGE TO A SHORE STATION	6.3.3 6.3.4	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE THE PROPER OPERATIONAL TECHNIQUES TO INITIATE, TRANSMIT AND CONCLUDE A NORMAL MESSAGE TO A SHORE STATION</li> </ul>
UNDERSTAND THE RELATION OF FREQUENCY, RANGE, POWER, AND TIME IN TRANSMITTING A MESSAGE	1.1.1 2.1.1 2.1.3 2.1.4 3.4.3 3.4.5	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• IS ABLE TO DESCRIBE TO EXAMINER THE NORMAL OPERATING RANGE OF MF/HF UNIT AND CIRCUMSTANCES WHICH INCREASE OR DECREASE RANGE</li> </ul>
ABILITY TO POWER DOWN UNIT	3.4.3	<ul style="list-style-type: none"> <li>• USE APPROVED EQUIPMENT OR</li> <li>• GMDSS SIMULATOR</li> </ul>	<ul style="list-style-type: none"> <li>• DEMONSTRATE ABILITY TO SECURE POWER TO UNIT INCLUDING DELAY TIMES OR SEQUENCES REQUIRED</li> </ul>
KNOWLEDGE OF UNIT RANGE	6.3.1	<ul style="list-style-type: none"> <li>• WRITTEN EXAM</li> </ul>	<ul style="list-style-type: none"> <li>• DESCRIBES THE RANGE TO BE EXPECTED IN A GIVEN SITUATION PRESENTED BY EXAMINER INCLUDING TIME OF DAY, DISTANCE TO STATION, POWER, FREQUENCY.</li> </ul>